Letters in Mathematic Physics **18** (1989)

Contents to Volume 18

Vol. 18 No. 1 July 1989

G. V. BEZMATERNIH and A. B. BORISOV / Rational-Exponential Solutions of Nonlinear Equations 1

P. MATHIEU and M. THIBEAULT / osp (N, 2) AKNS Equations 9

MICHAEL HERRMANN / A Relativistic Method for the Nonrelativistic Gap Problem 19

VLADIMIR PESTOV / On a 'Super' Version of Lie's Third Fundamental Theorem 27

EDWARD P. OSIPOV / The Central Extension of Kac–Moody–Malcev Algebras 35

V. S. VLADIMIROV and I. V. VOLOVICH / P-adic Schrödinger-Type Equation 43

MARK J. GOTAY and GIJS M. TUYNMAN / $\mathbf{R}^{2n}$ is a Universal Symplectic Manifold for Reduction 55

L. K. PATEL and SHARDA A. KOPPAR / Source-Free Electromagnetic Fields in the Einstein–Gödel Universe 61

RAINER DICK / Conformal Gauge Fixing in Minkowski Space 67

PETR ŠEBA / Klein's Paradox and the Relativistic Point Interaction 77

Vol. 18 No. 2 August 1989

ANDRZEJ FRYDRYSZAK / New Supersymmetry Transformations for a Graded Superfield Oscillator 87

ANTONIO F. RAÑADA / A Topological Theory of the Electromagnetic Field 97

PIOTR PODLEŚ / Differential Calculus on Quantum Spheres 107

MARY BETH RUSKAI / Limits on Stability of Positive Molecular Ions 121

K. DIETZ and H. RÖMER / Avoided Level Crossings and Pair Production in Strong Coulomb Fields 133

P. P. KULISH and N. YU. RESHETIKHIN / Universal R-Matrix of the Quantum Superalgebra osp(2 | 1) 143

H. GROSSE / The Symmetry of the Hubbard Model 151

BERNARD GROSSMAN and THOMAS W. KEPHART / Lattice Instantons in the Large Dimension Limit 157

M. CAHEN, A. FRANC, and S. GUTT / Spectrum of the Dirac Operator on Complex Projective Space $P_{2q-1}(\mathbf{C})$ 165

Vol. 18 No. 3 October 1989

HIDEYUKI KATO and SATORU SAITO / Generalization of Boson-Fermion Equivalence and Fay's Addition Theorem 177

J. SEKE and W. HERFORT / Finite-Time Deviations from Exponential Decay in the Weisskopf–Wigner Model of Spontaneous Emission 185

CHRISTINE BERTRAND and RICHARD KERNER / Geometrical Construction of a Generalized Skyrme Lagrangian 193

B. GAVEAU and L. S. SCHULMAN / Metastable Decay Rates and Analytic Continuation 201

KAZIMIERZ BRĄGIEL / 'Mass Formulae' for Tensor Operators Connected with Lie Superalgebras 209

KIMIO UENO, TADAYOSHI TAKEBAYASHI, and YOUICHI SHIBUKAWA / Gelfand–Zetlin Basis for $U_q(\mathfrak{gl}(N+1))$ Modules 215

W. O. AMREIN, A. BOUTET DE MONVEL-BERTHIER, and V. GEORGESCU / Commutators of Schrödinger Hamiltonians and Applications in Scattering Theory 223

O. M. KHUDAVERDIAN and R. L. MKRTCHIAN / Integral Invariants of the Buttin Bracket 229

CLAUDIO BARTOCCI, UGO BRUZZO, and GIOVANNI LANDI / Geometry of Standard Constraints and Weil Triviality in Supersymmetric Gauge Theories 235

J. SEKE and W. HERFORT / Finite-Time Deviations from Exponential Decay of Dipole-Moment Expectation Values in the Case of Spontaneous Emission 247

RAINER DICK / Krichever–Novikov-Like Bases on Punctured Riemann Surfaces 255

Vol. 18 No. 4 November 1989

J.-P. ANTOINE and S. ÔTA / Unbounded GNS Representations of a *-Algebra in a Krein Space 267

P. B. A. LECOMTE, D. MELOTTE, and C. ROGER / Explicit Form and Convergence of 1-Differential Formal Deformations of the Poisson Lie Algebra 275

SIDDHARTHA SEN and PHILIP MURPHY / Constraints on Two-Dimensional Conformal Field Theories from Knot Invariants 287

MARTIN LEGARE / Supersymmetric Reduction of the Wess–Zumino Model 299

HÉDI BEN AMOR and GEORGES PINCZON / The Graded Lie Algebra Structure of Lie Superalgebra Deformation Theory 307

MARC LESIMPLE / Homogeneous Propagators for Massless Half-Integer Spin Fields in 3+2 De Sitter Space 315

D. V. KTITAREV / Functional Integral and the Feynman–Kac Formula in Superspace 325

CONTENTS TO VOLUME 18

A. LICHNEROWICZ / On the Twistor-Spinors 333

L. K. PATEL and SHARDA S. KOPPAR / Rotating Viscous-Fluid Cosmologies with Scalar Field and Heat Flux 347

HUZIHIRO ARAKI / Selfadjointness and Positivity of a Certain Partial Differential Operator Associated with the Kerr Metric in General Relativity 355